REMARKS

This Response is submitted in reply to the non-final Office Action dated October 20, 2008, issued in connection with the above-identified application. Claims 1, 5, 6 and 13 are all the claims pending in the present application. By this response, no claims have been amended and no new matter has been introduced. Favorable reconsideration is respectfully requested.

In the Office Action, claims 1, 5, 6 and 13 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Samson et al. (U.S. Patent No. 4,654,857) in view of Unger (U.S. Publication No. 2003/0188007, hereafter "Unger").

The Applicants assert that the cited prior art fails to disclose or suggest all the features recited in at least independent claims 1 and 13. For example, claim 1 recites the following features:

"[a] data transmission/reception apparatus for performing a data transfer by a pipeline technique between a predetermined number of processing sections, each processing section being capable of performing a data process and the predetermined number of processing sections being two or more, said apparatus comprising:

a predetermined number of intermediary sections for interconnecting a first data processing section and a second data processing section and allowing data processed by the first data processing section to be transmitted to the second data processing section, the first data processing section and second data processing section being adjoining data processing sections, and said predetermined number of intermediary sections being smaller by one than the predetermined number of processing sections, ...

wherein said predetermined number of intermediary sections generate a data queue for retaining data to be transferred when said predetermined number of intermediary sections detect that both the first data processing section and the second data processing section are the active processing sections, and said predetermined number of intermediary sections do not generate the data queue when said predetermined number of intermediary sections detect that either the first data processing section or the second data processing section is the passive processing section." (Emphasis added).

The features emphasized above are similarly recited in independent claim 13.

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Additionally, the above features of the present invention are fully supported by the Applicants' disclosure.

The present invention (as recited in independent claims 1 and 13) is distinguishable over the cited prior art in that the data transmission/reception apparatus and method of the present invention determine whether or not to generate a data queue dynamically. Specifically, a predetermined number of intermediary sections or means determine whether or not to generate a data queue when the predetermined number of intermediary sections or means detect that both the first data processing section or means and the second data processing section or means are active, or that either the first data processing section or means, or the second data processing section or means is passive.

In the Office Action, the Examiner relied on Samson in view of Unger for disclosing or suggesting all the features of independent claims 1 and 13. Specifically, the Examiner relied on Samson for disclosing all the features of claims 1 and 13, except for the features of the predetermined number of intermediary sections emphasized above in claim 1 (and similarly recited in independent claim 13). The Examiner relied on Unger for disclosing or suggesting these features.

However, the Applicants assert that Unger fails to overcome the deficiencies noted above in Samson with regard to disclosing or suggesting all the features of the claimed predetermined number of processing sections or means for at least the reasons noted below.

First, with regard to the claimed "processing sections or mean" of the present invention, it appears that the Examiner believes that the claimed "processing sections or means" correspond to the "cache buffers 134a-h" or the "FIFOs 142a-g" disclosed in Unger. However, the cache buffers 134a-h or FIFOs 142a-g are different from the claimed "processing sections or means" of the presented invention in that the operation of a predetermined number of "caches" or "FIFOs" in Unger are the same.

On the other hand, the claimed "processing sections or means" of the present invention perform different operations. For example, each block in Fig. 12 of the specification of the present application is a" processing section or means" and performs a process different from those of the other blocks. Thus, Unger clearly does not disclose or suggest this feature of the

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claimed "processing sections or means" of the present invention (i.e., as recited in independent claim 1 and similarly recited in independent claim 13).

Second, the Applicants assert that Unger fails to disclose or suggest whether or not there is a dynamic determination of the generation of a queue.

Specifically, in the preset invention (as recited in independent claim 1 and similarly recited in independent claim 13) a predetermined number of intermediary sections or means generates a data queue for retaining data to be transferred when the predetermined number of intermediary sections or means detect that both the first data processing section or means and the second data processing section or means are active. On the other hand, the predetermined number of intermediary sections or means does not generate the data queue when the predetermined number of intermediary sections or means detect that either the first data processing section or the second data processing section is passive.

Unger discloses in paragraph ¶ [0053] (as pointed out by the Examiner) that "...the process disclosed proceeds to step 224 where the device determines if at least one transport stream is active. If not, step 226 is entered where the device activates a stream and prepares the data by, in part, loading data into a cache." Additionally, the Examiner states that Unger discloses that "the cache is not created when the stream is not active or activated."

However, the Applicants assert that Unger more accurately discloses that one stream is initiated and a cache is used when the transport stream is not active, and does not disclose the content (i.e., the cache is not created when the stream is not active or activated"), as stated by the Examiner. In other words, Unger merely discloses that an active stream is prepared when the stream is not active, and does not disclose or suggest that "if the data processing means is a passive processing means, a data queue is not generated and a data transfer is performed," as in the present invention.

Third, the Applicants assert that Unger fails to disclose or suggest the determination of active processing sections or means, and passive processing sections and means. Specifically, the present invention (as recited in independent claim 1 and similarly recited in independent claim 13) includes a predetermined number of intermediary sections or means that determine whether or not to generate a data queue when the predetermined number of intermediary sections or

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means detect that both the first data processing section or means and the second data processing section or means <u>are active,</u> or that either the first data processing section or means, or the second data processing section or means <u>is passive.</u> No such features are believed to be disclosed or suggested by Unger.

Accordingly, no combination of Samson and Unger would result in, or otherwise render obvious, independent claims 1 and 13. Likewise, no combination of Samson and Unger would result in, or otherwise render obvious, claims 5 and 6 at least by virtue of their dependencies from independent claim 1.

Based on the foregoing, the Applicants respectfully submit that all the pending claims are patentable over the prior art of record. Thus, the Applicants respectfully request that the Examiner withdraw the rejections presented in the outstanding Office Action, and pass the application to issue. The Examiner is invited to contact the undersigned attorney by telephone to resolve any remaining issues.

Respectfully submitted,

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